UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,581	06/07/2001	Jonathan Yen	10015191-1	1662

7590   05/27/2004

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO   80527-2400

EXAMINER
CHAWAN, SHEELA C

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 05/27/2004   6

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,7-14,16-24 and 28-34* is/are rejected.

7)☒ Claim(s) *4-6,15,25- 27* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment filed March 15, 2004 (paper # 5/A) has been entered and made of record.

Applicant's arguments, see page 9- 11, lines 3-12, filed March 15, 2004, with respect to the rejection(s) of claim(s) 1-20, under 103(a) rejection have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ma (US.6, 565,003 B1).

Claim Rejections - 35 U.S.C. § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1- 3, 7-14, 16-24, 28- 34, are rejected under 35 U.S.C. 102(e) as being anticipated by Ma (US.6, 565,003 B1).

As to claims 1, 13 and 20, Ma discloses a method of extracting (fig 5) from an input image (figure 4 shows a barcode 210 with the background of printed media 220; also see a scanned input image in figure 5) graphical bar code (figure 2; 210 in figure 4 is a barcode) containing graphically encoded information (figure 3), comprising:

trimming non-graphical bar code regions (in fig 5, step crop 110 provides trimming or cutting or clipping of a nongraphical background area 220 based on determination of an estimated location of the barcode position in step 104 and deskewed in step 108; see also column 4, lines 2- 57) from the input image based upon estimated (column 9, lines 10- 67) position coordinates for a detected graphical bar code candidate to produce a trimmed graphical bar code candidate for decoding (column 5, lines 1-11, column 7, lines 1-30, column 16, lines 53-67, column 17, lines 40- 60).

As to claims 2,14 and 23, Ma discloses the method, further comprising cropping the input image before trimming based upon estimated position coordinates (column 4, lines 58- 67, column 5, lines 1-11) for a detected graphical bar code candidate to (column 17, lines 40- 60) produce an inclusive image region encompassing the detected graphical bar code (column 8, lines 13- 51, column 13, lines 46- 61).

As to claims 3 and 24, Ma disclose the method, further comprising computing the angular orientation of the detected graphical bar code (column 17, lines 40- 60) candidate (column 5, lines 6-11),

As to claims 7, 16 and 28, Ma discloses the method comprising de-skewing the detected graphical bar code candidate before the non-graphical bar code region are trimmed column 4, lines 2-27, column 17, lines 40- 60).

As to claims 8,17 and 29, Ma discloses the method comprising rotating the input image and processing the rotated input image to detect a graphical bar code candidate in response to a failure to detect a graphical bar code candidate in response to a failure to detect a graphical bar code candidate in the input image before rotation (column 4, lines 2-27, column 10, line 11 through column 11, lines 67, column 12, lines 1- 50).

As to claims 9, 18 and 30 Ma discloses the method further comprising detecting a graphical bar code candidate based upon a second training sample in response to a failure to detect a graphical bar code candidate in the input image based upon a first training sample (fig 10, column 12, lines 25- 50, column 17, lines 40- 60).

As to claims 10 and 31 Ma discloses the method wherein the second training samples is a rotated version of the first training sample (column 4, lines 58- 67, column 5, lines 1-11).

As to claims 11,19 and 32, Ma disclose the method further comprising extracting a second graphical bar code candidate detected in the input image in response to a determination that a first extracted graphical bar code candidate does not correspond to the graphical bar code (column 10, line 11 through column 11, lines 67, column 12, lines 1- 50).

As to claims 12 and 33, Ma discloses the method further comprising resolution scaling the trimmed graphical bar code candidate (column 8, lines 24- 51).

As to claim 21, the method further comprising decoding (column 10, lines 11- 20) the graphical bar code candidate (column 13, lines 46- 67).

As to claim 22, discloses the system further comprising a decoder configured to decode the graphical bar code candidate (fig 3, column 7, lines 25- 42).

As to claim 34, Ma discloses the computer program further comprising computer readable instruction for causing the computer to decode the graphical bar code candidate, (column 6, lines 41- 46).

Allowable Subject Matter

3.   Claims 4 -6, 15, 25-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other prior art cited

4.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zheng et al. (US. 5,418,862) discloses method and apparatus for detecting artifacts corners in two- dimensional images.

Lopresti et al. (US. 5,862,270) discloses clock free two-dimensional barcode and method for printing and reading the same.

Hertz et al.(US. 6,366,696 B1) discloses visual bar code recognition method.

Su et al. (US. 5,946, 415) discloses method and apparatus to process drawing images.

Zhou et al. (US. 6,201,901 B1) discloses border–less clock free two-dimensional barcode and method for printing and reading the same.

Contact Information

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Sheela C Chawan whose telephone number is 703-

305- 4876. The examiner can normally be reached on Monday - Thursday 6 - 7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Sheela Chawan
Patent Examiner
Group Art Unit 2625
May 19, 2004